UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
MARANDI, JAMES R

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
10/708,529</td><td>Applicant(s)
BUMGARDNER ET AL.</td><td></td></tr>
<tr><td>Examiner
JAMES R. MARANDI</td><td>Art Unit
2421</td><td></td></tr>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _10 February 2009_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1,3,4,8,9,11,12,16,17,19,20,24 and 28-36_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1,3,4,8,9,11,12,16,17,19,20,24 and 28-36_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1)   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since

this application is eligible for continued examination under 37 CFR 1.114, and the

fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous

Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's

submission filed on 2/10/09 has been entered.

Response to Amendment

2)   This action is in response to applicant's amendment filed on 2/10/09. Claims 1, 3,

4, 8, 9, 11, 12, 16, 17, 19, 20, 24, and 28-36 are presently pending. Claims 2, 5-

7, 10, 13-15, 18, 21-23, and 25-27 have been cancelled. Claims 28-36 are newly

presented.

Response to Arguments

3)   Applicant's arguments with respect to claims 1, 3, 4, 8, 9, 11, 12, 16, 17, 19, 20,

24, and 28-36 have been considered but are moot in view of the new ground(s)

of rejection.

Claim Rejections - 35 USC § 112

4)   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5)   Claims 8 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 depends on canceled claim 6, and claim 24 depends on canceled claim 22, as such claims 8 and 24 are vague and indefinite since they depend on nonexistent limitations.

However, to further prosecution, the examiner assumes that claim 8 is dependent on claim 1, and claim 24 is dependant on claim 17.

Claim Rejections - 35 USC § 102

6)   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States
> before the invention by the applicant for patent; or (2) a patent granted on an application for patent
> by another filed in the United States before the invention by the applicant for patent, *except* that an
> international application filed under the treaty defined in section 351(a) shall have the effects for the
> purposes of this subsection of an application filed in the United States only if the international
> application designated the United States and was published under Article 21(2) of such treaty in the
> English.

7)   Claims 1, 9, 16, 17, and 28-36 are rejected under 35 U.S.C. 102(e) as being

anticipated by M.K. Buxton, USPGPUB 2003/0204856 (hereinafter "Buxton").

8)   Regarding claim 1, Buxton discloses **a method for using a network** (Fig. 1,

102, 107, also designated local network 105) **of set-top boxes (**108 set-top

boxes, also disclosed as processing units encompassing capabilities to tune,

store, stream, etc. ¶[17])**, comprising:**

       providing at least a first and a second set-top box in a network (any

of 108s assumes the role of 1st and 2nd)**, wherein each of said first and**

second set-top boxes includes a respective first and second storage device

capable of storing programs (¶ [13]) **;**

making said first and second storage devices available to said

network (108s are attached and available to networks 107, 102, and designated

local network 105);

receiving a request to record a program in said first set-top box (Fig.

4, 402, requesting for multimedia is either watching the program on display 110,

or storing/ downloading/ recording in storage such as DPR/DVR/TiVO ¶ [13]);

querying said network (request is sent to database server 104, at step

404, 104 queries all processing units at step 406) **with said first set-top box, to**

determine whether said program is stored in said second storage device

included in said second set-top box (at step 414 the closest available

processing unit -108, set-top box- is identified) ;

when said query indicates that said program is stored in said second

storage device, accessing said program stored on said second storage

device over said network with said first set-top box in response to

receiving said recording request (step 416); **and**

otherwise, using at least one of said first and said second storage

devices in response to receiving said recording request (upon availability of

the program, the program is recorded on the hard disk (DVR), and/or displayed in

TV). Figs 1, 4; ¶¶ [10]- [17], and [43]- [45]

Regarding claim 28, **further comprising recording said program to**

**said second storage device prior to receiving said recording request
in said first set-top box**, ¶¶ [23]- [25], server 104 ensures content is
distributed amongst 108s, with available resources, before any request for
display/ record is made by a user.

Regarding claim 29, **wherein accessing said program stored on said
second storage device comprises retrieving, over said network, said
program from said second storage device, with said first set-top box**,
upon availability of the program at step 414 of Fig.4, the content is served
(retrieved/ downloaded/streamed/ played) to the requesting device.

Regarding claim 30, **wherein accessing said program stored on said
second storage device comprises displaying said program with said
first set-top box**, processing unit 108 is attached to display device (TV)
110.

9)   Regarding claim 9, Buxton discloses **a network** (Fig. 1, 102, 107, also
designated local network 105) **of set-top boxes (**108 set-top boxes, also

disclosed as processing units encompassing capabilities to tune, store, stream,

etc. ¶[17]), **comprising:**

A network (Fig. 1, 102, 107, also designated local network 105);

at least a first and a second set-top box connected in said network

(any of 108s assumes the role of 1st and 2nd);

a first and second storage device included in respective said first

and second set-top boxes, wherein each of said storage devices is capable

of storing programs (¶ [13]) **and is available to said network** (processing

units 108 are connected to networks 107, 105, and 102); **and**

a processor on said first set-top box, said processor being

configured to (as disclosed in ¶[17], processing unit 108 has a processor, e.g. a

personal computer):

receive a request to record a program (Fig. 4, 402, requesting for

multimedia is either watching the program on display 110, or storing/

downloading/ recording in storage such as DPR/DVR/TiVO ¶ [13]);

transmit a query to said network (request is sent to database

server 104, at step 404, 104 queries all processing units at step 406) **to**

determine whether said program is stored in said second storage

device included in said second set-top box (at step 414 the closest

available processing unit -108, set-top box- is identified) ;

access said program stored on said second storage device

over said network with said first set-top box in response to receiving

said recording request when said query indicates that said program

is stored in said second storage device (step 416)**; and**

otherwise, use at least one of said first and said second storage

devices in response to receiving said recording request (upon availability of

the program, the program is recorded on the hard disk (DVR), and/or displayed in

TV). Figs 1, 4; ¶¶ [10] - [17], and [43] - [45]

Regarding claim 31, **further comprising a processor** (¶ [17], set top

boxes have processors) **on said second set-top box, configured to**

receive a recording request prior to receiving said recording request

in said first set-top box, ¶¶ [23]- [25], server 104 ensures content is

distributed amongst 108s, with available resources, before any request for

display/ record is made by a user.

Regarding claim 32, **wherein said processor** (¶ [17], set top boxes have

processors) **is further configured to retrieve, over said network, said**

program from said second storage device when said query indicates

that said program is stored in said second storage device, upon

availability of the program at step 414 of Fig.4, the content is served

(retrieved/ downloaded/streamed/ played) to the requesting device.

Regarding claim 33, **wherein said processor** (¶ [17], set top boxes have

processors) **is further configured to display said program when said**

query indicates that said program is stored in said second storage

device, processing unit 108 is attached to display device (TV) 110.

10)   Regarding claim 16, Buxton discloses **a network** (Fig. 1, 102, 107, also

designated local network 105) **of set-top boxes (**108 set-top boxes, also

disclosed as processing units encompassing capabilities to tune, store, stream,

etc. ¶[17]), **comprising:**

    Means for providing at least a first and a second set-top box in a

network (any of 108s assumes the role of 1st and 2nd), **wherein each of said**

first and second set-top boxes includes a respective first and second

storage device capable of storing programs (¶ [13]) ;

    Means for making said first and second storage devices available to

said network (108s are attached and available to networks 107, 102, and

designated local network 105)**;**

    Means for receiving a request to record a program in said first set-

top box (Fig. 4, 402, requesting for multimedia is either watching the program on

display 110, or storing/ downloading/ recording in storage such as

DPR/DVR/TiVO ¶ [13]);

Means for querying said network (request is sent to database server

104, at step 404, 104 queries all processing units at step 406) **with said first**

set-top box, to determine whether said program is stored in said second

storage device included in said second set-top box (at step 414 the closest

available processing unit -108, set-top box- is identified) ;

Means for accessing said program stored on said second storage

device over said network with said first set-top box in response to

receiving said recording request when said query indicates that said

program is stored in said second storage device (step 416); **and**

otherwise, means for using at least one of said first and said second

storage devices in response to receiving said recording request (upon

availability of the program, the program is recorded on the hard disk (DVR),

and/or displayed in TV). Figs 1, 4; ¶¶ [10]- [17], and [43]- [45]

11)   Regarding claim 17, Buxton discloses **a computer program product**

comprising:

A computer usable medium having computer readable program code

means embodied therein for causing a computer to use a network of set-

top boxes (Fig. 1, 102, 107, also designated local network 105; 108 set-top

boxes, also disclosed as processing units encompassing capabilities to tune,

store, stream, etc. ¶[17], all processing units are networked and enabled to

effectuate the capabilities outlined below), **comprising:**

Computer readable program code means for causing a computer to

provide at least a first and a second set-top box in a network (any of 108s

assumes the role of 1st and 2nd), **wherein each of said first and second set-**

top boxes includes a respective first and second storage device capable of

storing programs (¶ [13]) ;

Computer readable program code means for causing a computer to

make said first and second storage devices available to said network (108s

are attached and available to networks 107, 102, and designated local network

105);

Computer readable program code means for causing a computer to

receive a request to record a program in said first set-top box (Fig. 4, 402,

requesting for multimedia is either watching the program on display 110, or

storing/ downloading/ recording in storage such as DPR/DVR/TiVO ¶ [13]);

Computer readable program code means for causing a computer to

query said network (request is sent to database server 104, at step 404, 104

queries all processing units at step 406) **with said first set-top box, to**

determine whether said program is stored in said second storage device

included in said second set-top box (at step 414 the closest available

processing unit -108, set-top box- is identified) **;**

Computer readable program code means for causing a computer to

access said program stored on said second storage device over said

network with said first set-top box in response to receiving said recording

request when said query indicates that said program is stored in said

second storage device (step 416)**; and**

otherwise, Computer readable program code means for causing a

computer to use at least one of said first and said second storage devices

in response to receiving said recording request (upon availability of the

program, the program is recorded on the hard disk (DVR), and/or displayed in

TV). Figs 1, 4; ¶¶ [10] - [17], and [43] - [45]

Regarding claim 34, **wherein said computer usable medium having**

computer readable program code means further comprises computer

readable program code means for recording said program to said

second storage device prior to receiving the recording request in

said first set-top box, ¶¶ [23] - [25], server 104 ensures content is

distributed amongst 108s, with available resources, before any request for

display/ record is made by a user.

Regarding claim 35, **wherein said computer readable program code means for causing a computer to access said program comprises computer readable program code means for causing a computer to retrieve, over said network, said program from said second storage device, with said first set-top box**, upon availability of the program at step 414 of Fig.4, the content is served (retrieved/ downloaded/streamed/ played) to the requesting device.

Regarding claim 36, **wherein said computer readable program code means for causing a computer to access said program comprises computer readable program code means for causing a computer to display said program with the first set-top box**, processing unit 108 is attached to display device (TV) 110.

Claim Rejections - 35 USC § 103

12)   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

13)   Claims 3, 4, 8, 9, 11, 12, 19, 20, and 24 are rejected under U.S.C § 103(a) as

being unpatentable over Buxton, in view of M.A. Dovi, USPGPUB 2002/0184451

(hereinafter "Dovi").

14)   Regarding claim 3, **wherein said first set-top box uses said first storage**

device when said first storage device is available, and attempts to use said

second storage device when said first storage device is not available,

Buxton discloses a distribution monitor 212 of the server 104 (Fig. 2 details the

components of 104) to monitors the availability of storage on processing units

108. Buxton does not disclose processing units running a storage monitor for

monitoring the availability of storage capacity on other storage monitors in case

of lack of storage availability on the local device.

However, Dovi discloses a storage proxy/ registry whereby an application

performs storage discovery function on available storage units in order to find

enough space for storing data generated during running of the application.¶¶ [16]

and [18]

Therefore, it would have been obvious to one of ordinary skill in the art, at the

time of invention, to modify the system of Buxton with Dovi's invention (whereby

Buxton's processing units running video storage/display applications are

equipped to run Dovi's data storage method) in order to optimize storage

utilization throughout the network.

Regarding claim 4, the system of Buxton and Dovi discloses **wherein said first

set-top box determines whether said first storage device or said second

storage device has more space available and uses the one of said first and

second storage devices that has more space available**; see Dovi ¶ [18],

where Dovi monitors the amount of storage available, and can reallocate storage

and/or reduce service levels in order to ensure that the application (video

program) has enough space to be stored.

Regarding claim 8, **when said program is not stored in said second storage device**, the system of Buxton determines where said program is stored and makes it available to the user, first set-top box, through that resource ¶¶ [24] - [26]. Buxton does not disclose processing units 108 (1st set-top box) running a storage monitor for monitoring the availability of storage capacity on other storage monitors in case of lack of storage availability on the local device, and therefore the set-top box does not monitor its own or its neighbors' storage status.

However, Dovi discloses a storage proxy/ registry whereby an application performs storage discovery function on available storage units in order to find enough space for storing data generated during running of the application (¶¶ [16] and [18]), therefore enables the processing Unit 108 (first set-top box) running the video application to

examine said first storage device to determine whether said first storage device has enough space available for said program;

record said program to said first storage device, when there is enough space available for said program;

examin said second storage device to determine whether said

second storage device has sufficient space available, when enough space

was not available on said first storage device; and

record said program to said second storage device, when there is

sufficient space available for said program on said second storage device

and not on said first storage device.

Therefore, it would have been obvious to one of ordinary skill in the art, at the
time of invention, to modify the system of Buxton with Dovi's invention (whereby
Buxton's processing units running video storage/display applications are
equipped to run Dovi's data storage method) in order to optimize storage
utilization throughout the network.

Claim 11 is rejected by the same analysis as claim 3.

Claim 12 is rejected by the same analysis as claim 4.

Claim 19 is rejected by the same analysis as claim 3.

Claim 20 is rejected by the same analysis as claim 4.

Claim 24 is rejected by the same analysis as claim 8.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES R. MARANDI whose telephone number is (571)270-1843. The examiner can normally be reached on 8:00 AM- 5:00 PM M-F, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James R. Marandi/
Examiner, Art Unit 2421

/John W. Miller/
Supervisory Patent Examiner, Art Unit 2421